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Canadian Grain Commission

ANNUAL REPORT
1983



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Winnipeg, Manitoba
February 29, 1984

The Honourable Eugene F. Whelan,
Minister of Agriculture,
OTTAWA, Canada.

Sir:

In compliance with Section 14 of the Canada Grain Act, the 1983 Annual Report of the Canadian Grain Commission is hereby submitted.

The document provides information and statistics relating to the quality and volume of grain handled in the licensed elevator system during the 1982-83 crop year. It also reviews the Commission's main activities for that period, in carrying out its mandate of regulating grain handling in Canada and establishing and maintaining standards of quality for Canadian grains and oilseeds.

Respectfully,

H.D. POUND
Chief Commissioner

G.G. LEITH
Assistant Chief Commissioner

V.E. CANDLISH
Commissioner

SECTION I

INTRODUCTION

Established in 1912 by the Canada Grain Act, the Canadian Grain Commission is responsible to the Minister of Agriculture who reports on its activities to the Parliament of Canada. Pursuant to the Act, the Commission has two main activities: it regulates grain handling in Canada and establishes and maintains standards of quality for Canadian grains and oilseeds. Operations are funded mainly by fees for services performed.

Three Commissioners appointed by Governor-in-Council develop policy to meet the Commission's objectives.

Operations are headed by the **Executive Director** who plans, co-ordinates and administers the activities of all Divisions and assists in developing and implementing Commission policies.

There are four operating Divisions:

The **Inspection Division** maintains quality control of Canadian grains and oilseeds as they move through the handling system. It officially inspects grain at licensed terminal and transfer elevators and supervises and controls the treatment of grain.

The **Weighing Division** supervises weighing of grain at licensed terminal and transfer elevators. It regularly audits their physical stocks and investigates excessive overages and shortages in grain receipts or shipments.

The **Grain Research Laboratory** assesses the quality of new crops, monitors the quality of grain moving through the licensed elevator system and conducts basic and applied research on Canadian grains and oilseeds.

The **Economics and Statistics Division** provides documentation to terminal and transfer elevators, conducts economic studies for the Commission and publishes statistics. As well, it issues grain dealer and elevator licences and supervises bonding of licensees.

The **Assistant Commissioners**, also appointed by Governor-in-Council, supervise the operations of licensed primary elevators and deal with producer inquiries and complaints.

The **Grain Appeal Tribunal** examines appeals of grades assigned by a Commission inspector on the official inspection of a sample of grain.

The **Eastern and Western Grain Standards Committees** review and recommend new grades and grade changes, as well as examine and recommend primary and export standard samples.

The **Supervisor of the Commodity Exchange** supervises futures trading in Canada under the terms of the Grain Futures Act.

Headquartered in Winnipeg, the Commission has offices at 18 centres across Canada and employs about 850 people, including administrative and clerical personnel, scientists, statisticians, economists, grain inspectors and weighers and other specialists and technicians.

SECTION II

PRODUCTION, QUALITY AND DISPOSITION OF GRAIN

GRAIN SUPPLIES AND DISPOSITION

The record high level of activity, which characterized the previous crop year, continued through the 1982-83 period. Record producer deliveries and record exports were the highlights of the year.

Total grain and oilseed carry-over into the 1982-83 crop year was estimated at 17.7 million tonnes. The 1982 crop production included 26.8 million tonnes of wheat (including durum wheat), 3.7 million tonnes of oats, 14.1 million tonnes of barley, 0.9 million tonnes of rye, 0.7 million tonnes of flaxseed and 2.2 million tonnes of rapeseed. The August 1st, 1982 carry-over, plus the 1982 crop production of 48.4 million tonnes, provided a total available supply of 64.5 million tonnes for export or domestic consumption.

Producers delivered a record total of 36.2 million tonnes of the principal grains and oilseeds to the licensed elevator system. This was 16% more than during the 1981-82 crop year.

Canada exported a record volume of 28.3 million tonnes of bulk grains during the 1982-83 crop year, surpassing last crop year's high of 26.0 million tonnes. New record highs were established for wheat: 18.3 million tonnes and durum wheat: 2.7 million tonnes.

The total 1982-83 commercial disappearance of 46.8 million tonnes included 17.7 million tonnes used domestically. Despite this high disappearance, closing stocks as of July 31, 1983 had increased significantly to 17.7 million tonnes.

GRAIN MARKETING AND QUALITY — 1982-83

Red Spring Wheat. Western Canadian producers delivered 22.5 million tonnes of Red Spring Wheat in the 1982-83 crop year, an increase of 32% from the previous crop year. The grade distribution in Red Spring Wheat received at terminal elevators during the crop year was as follows: No. 1 Canada Western, 48%; No. 2 Canada Western, 18%; No. 3 Canada Western, 19%; No. 1 and 2 Canada Utility, 3% and Canada Feed, 12%. Exports of Red Spring Wheat increased 18% over the previous year to 17.4 million tonnes.

Amber Durum Wheat. Producer deliveries of Durum Wheat totalled 2.9 million tonnes during the 1982-83 crop year, an increase of 10% over the previous year. The grade distribution in the Durum Wheat received at terminal elevators during the year were as follows: No. 1 Canada Western, 64%; No. 2 Canada Western, 19%; No. 3 Canada Western, 12% and No. 4 and No. 5 Canada Western, 5%. Durum Wheat exports totalled 2.7 million tonnes, an increase of 16% over the previous year.

Barley. Western Canadian producers delivered 7.1 million tonnes of Barley in the 1982-83 crop year, a decrease of 6% from the previous year. The predominant grade entering into terminal elevators was No. 1 Feed representing 87% of the total receipts. Canadian Barley exports declined to 5.3 million tonnes, 7% less than last crop year when 5.7 million tonnes were exported.

Rye. Deliveries of Rye during the 1982-83 crop year totalled 0.5 million tonnes, a decrease of 16% from the previous year. Rye exports decreased sharply to 0.3 million tonnes as compared to last year's total of 0.5 million tonnes.

Oats. Producer deliveries of Oats totalled 0.4 million tonnes during 1982-83, a decrease of 27% from the previous crop year. Exports of this grain totalled 0.1 million tonnes, more than twice the export total of the previous crop year.

Flaxseed. Canadian producers delivered 0.5 million tonnes of Flaxseed during 1982-83, an increase of 40% over the previous crop year. Flaxseed exports remained relatively steady as compared to the previous crop year, at 0.4 million tonnes.

Rapeseed. Deliveries of Rapeseed in 1982-83 reached 2.0 million tonnes, approximately the same volume as last year. Rapeseed exports of 1.3 million tonnes reflected a decline from 1.4 million tonnes for the previous crop year.

GROWING CONDITIONS, GRADES AND QUALITY OF THE 1983 CROP

Wet weather, late snow and very low temperatures throughout the Prairies delayed seeding of the 1983 crop, but helped ensure good moisture conditions well into the growing season. By the first week of June, seeding was essentially complete, except for the Carrot River region of Saskatchewan and the Swan River region of Manitoba where excessive moisture kept farmers off their fields.

Although germination was generally satisfactory, there was some reseeded of flaxseed and rapeseed in the Lloydminster and Wainwright districts of Alberta. Lack of precipitation from mid-May until the third week of June resulted in areas of slow and uneven growth, particularly in the northwest portion of the grain growing region. Warm weather and frequent rainfall, from the end of June until the third week in July, allowed crops to develop well over most of the Prairies. However, moisture conditions in the Swan River region remained excessive and heavy rains in north-central Alberta caused drowning, lodging and root rot.

Crop damage due to insects and pests was light, except for northeastern Saskatchewan where wheat stem maggots and wheat midge flies were reported. Spraying for weeds was generally hampered by wet fields and heavy winds early in the growing season.

Very hot and dry weather persisted over the Prairies from the last week of July until the first week of September. Heat and drought stress occurred in southern regions by the second week of August, with underdeveloped kernels and heads due to premature ripening. Early production estimates which forecast new record highs were lowered.

Swathing of some early-seeded barley in the extreme south of Alberta began in the first week of August and was general for most crops by mid-August. Good, dry harvesting conditions prevailed into September, with only rare interruptions due to showers. However, two weeks of very cool and wet weather in mid-September stopped all progress, affecting grain in the swath in the northern and central regions.

Warm, dry weather returned to the Prairies in the last week of September and by mid-October, virtually all crops had been harvested.

A much greater proportion of the 1983 crop will be eligible for the top grades, compared to last year. However, the effects of drought stress are reflected in lower yields and lighter test weight, but higher protein in wheat.

SECTION III

CANADA GRAIN ACT

The Act requires the Canadian Grain Commission to establish and maintain standards of quality for Canadian grain and regulate grain handling in Canada, to ensure a dependable commodity for domestic and export markets.

(A) REGULATION OF GRAIN HANDLING

Licensing. On August 1st, 1982, the Commission had issued a total of 3,049 licences, including 2,934 primary elevators, 48 terminal and process elevators, 27 transfer elevators, and 40 grain dealer licences. On August 1st, 1983, 2,947 licences were in force, totalling 2,800 primary elevators, 56 terminal and process elevators, 25 transfer elevators, and 66 grain dealer licenses. Additional statistics on licences issued and storage capacity appear in Appendix A-2.

Security. Licensees must provide security to the Commission sufficient to ensure that their outstanding obligations for authorized and prescribed documents will be met in case of default or failure to pay.

During the 1982-83 crop year, the Commission realized on the security held by two licensees: Heritage Grain Ltd. and Gibbs Farms Ltd. Because these firms were in receivership and holders of documents were unable to receive payment, the Commission acted in conjunction with the issuers of security to ensure that eligible document holders were paid. Payment procedures were initiated and should be completed in the first half of the 1983-84 crop year.

Monies previously realized from the security tendered by Consolidated Seed Exports Ltd., Memco Limited and Econ Consulting Ltd., for defaulting on their obligations, continued to be held in trust accounts pending the completion of negotiations or interpleader proceedings on eligibility of applicants and claims. At that time, the principal amounts and earned interest will be distributed to eligible claimants.

DOCUMENTATION

Statistics. The Economics and Statistics Division is the principal Canadian source of statistics on grain handling, movement and storage. Essential to the Commission's control and supervision of the bulk grain-handling system, these statistics are based on the official records and periodic reports submitted by licensees, as well as on the Commission's operations in licensed elevators. Corresponding data from the Canadian Wheat Board and from other organizations and associations are also taken into account.

Statistics are published on the volume of Canadian grain handled and stored within the elevator system, and moved to domestic and export markets. Distributed both in Canada and abroad, these reports are of value to the Commission's operations, the grain industry and other government departments.

The Division works in close co-operation with the Canadian Wheat Board, Statistics Canada's Agriculture Statistics Division and other provincial and federal agencies. In addition to data exchanges, the Division provides statistical support to

the Food and Agriculture Organization of the United Nations, the International Wheat Council and the United States Department of Agriculture.

Documentation Services. The Economics and Statistics Division provides documentation and reporting services for licensed terminal and transfer elevators. Selected information is electronically integrated into the accounting and inventory systems of other agencies and organizations of the industry. This material is used extensively by the Division to prepare statistical reports and by the grain industry in business activity and research studies.

Registration. Sections 95 and 96 of the Canada Grain Act provide for the registration and cancellation of elevator receipts by the Commission. Licensed terminal and transfer elevators must issue elevator receipts for all registered grain received. Similarly, when delivering grain, terminal and transfer elevators must surrender to the Commission for cancellation elevator receipts of the same kind, grade and quantity of grain.

Elevator receipts are issued and cancelled on the basis of official grade and weight records. A registered elevator receipt can be used as a negotiable document.

The Economics and Statistics Division offices in Winnipeg, Vancouver and Montreal control the registration and cancellation of elevator receipts. The Commission's Inspection Division office at Chatham, provides similar services to transfer elevators in southern Ontario, on a request basis.

During the 1982-83 crop year, elevator receipts representing 30 894 105.402 tonnes of grain unloaded were registered and elevator receipts representing 30 912 208.863 tonnes of grain shipped were cancelled in the Western Division. In the Eastern Division, elevator receipts representing 22 989 315.452 tonnes of grain unloaded were registered and elevator receipts representing 23 074 730.818 tonnes of grain shipped were cancelled.

In the western Division, 14 official grain weighovers were completed, two of which involved primary elevators at Vermilion, Alberta. A pilot project carried out during the 1982-83 crop year with Alberta Terminals Limited allowed its terminal elevator at Lethbridge to operate as an inland terminal. Under this experiment, the Commission waived official inspection and weighing of grain received into the elevator, but all grain discharged remained subject to official inspection and weighing. At the end of the project, the elevator applied to be licensed as a primary elevator, effective August 1st, 1983.

In the Eastern Division, a total of 15 official grain weighovers were completed during the 1982-83 crop year.

PRIMARY ELEVATORS

Maximum Tariffs for Services. Maximum allowable tariffs for grain handling and storage services were increased by approximately 6% on October 1st, 1982. The new maximum tariff for wheat was set at \$7.57 per tonne for elevation and \$0.023 per day for storage. Most companies continued to charge less than the allowable maximum tariffs for the major services (receiving, elevating, shipping) performed at their elevators.

Inspection of Licensed Primary Elevators. The Canada Grain Act provides for the appointment of six Assistant Commissioners: one in Quebec, Ontario, Manitoba and Alberta and two in Saskatchewan. As representatives of the Commission, they

maintain liaison between the Commission and elevator manager and grain producers, and deal with producer enquiries and complaints.

During 1982-83, the Assistant Commissioners inspected 330 elevators in Manitoba, 455 in Saskatchewan and 431 in Alberta. Their inspections included checks on scales, sieves, moisture meters and other equipment. They also examined deductions for shrinkage, assessment of dockage, reports on contaminated grain, use of authorized forms, and posting of current Commission regulations applying to primary elevators.

The Assistant Commissioners investigated producers' complaints and reported infractions of the Commission's regulations and orders. They received and handled numerous inquiries from producers and elevator operators on various matters such as grain grading and movement, and publicized the Commission's work within the farm and business community.

To determine whether there is an overage or shortage in receipts or shipments of grain, the Commission requires that stocks of grain, grain products and screenings in store in licensed primary and process elevators be weighed periodically. The Commission reviews the details of the weigh-overs and, when necessary, holds discussions with company management. The Assistant Commissioners are authorized to deal directly with elevator managers and superintendents, where excessive overages or shortages have been reported.

TERMINAL AND TRANSFER ELEVATORS

Maximum Tariffs for Services. The maximum allowable tariffs for grain handling and storage services were increased by approximately 6% as of October 1st, 1982. The new maximum terminal tariff for wheat was set at \$4.45 per tonne for elevation and \$0.031 per day for storage. Transfer elevator tariffs vary according to mode of transport, but operate at the maximum rates set by the Commission.

Inspection of Equipment and Facilities. In licensed terminal and transfer elevators, all samplers, scales and equipment for transferring grain to scales on receipt and from scales for shipment are inspected periodically. By arrangement with the Department of Consumer and Corporate Affairs, scales in those facilities are inspected, verified and certified by the Commission's scale inspectors. During the 1981-82 crop year, the Weighing Division carried out 839 inspections of 401 scales.

The Commission encourages the early submission of plans and specifications of new elevator facilities and alterations to grain-handling equipment. During the year, the Inspection and Weighing Divisions examined six sets of plans.

Weighing Services. The Weighing Division supervises the weighing of grain received at and discharged from licensed terminal elevators. The weighing of grain received at and discharged from licensed transfer elevators is randomly monitored and official weighing is carried out on request.

Weigh-Overs. The Weighing Division regularly audits stocks in store in licensed terminal and transfer elevators. These weigh-overs ensure that the quality and quantity of grain has not been altered during handling.

TRANSPORTATION

Producer Cars. During the 1982-83 crop year, a total of 4 225 rail cars were loaded

by producers, compared to 3 282 for the previous period. Grain companies provided administrative services for most of these shipments. Producers in British Columbia and Alberta loaded 1 832 cars, 1 386 were loaded in Manitoba and 1 007 originated in Saskatchewan. Over half the producer cars originated from 11 shipping blocks. Thunder Bay was the destination for 3 131 cars, while Vancouver received 1 030 cars and 64 cars were shipped to other destinations.

(B) STANDARDS OF QUALITY

New Grades and Revised Grade Definitions. During the year, changes in the grade definitions were prepared for soft white spring wheat, peas, lentils, and the experimental grades of wheat, to be effective August 1st, 1983.

Grading Services to Producers. In the Western Division, a producer dissatisfied with the grade, dockage or moisture content assessed upon delivery of grain to a primary elevator may ask that a representative portion of the sample taken at unload be sent to the Commission for official grade and dockage. If the producer is still dissatisfied, the Chief Grain Inspector may be asked to review the sample. Similarly, if it is believed by the owner that the identity of grain specially binned in a primary elevator has not been preserved, the Commission may be called upon to arbitrate. The Inspection Division also inspects samples forwarded by interested parties, either as a free service or on a fee basis.

Similar services are provided to producers in the Eastern Division, although on a more informal basis. Producers may submit samples for official inspection. The Commission's grades on these samples are not binding on the country elevator managers, except in the case of deliveries of wheat, soybeans and white pea beans to agents of the Ontario Wheat Producers Marketing Board, the Ontario Soya Bean Growers Marketing Board, and the Ontario Bean Producers Marketing Board. These organizations have included in their contract with their agents the provision for taking representative samples for official inspection by the Commission.

During the 1982-83 crop year, 71 134 samples of grain "Subject to Grade and Dockage" and unofficial samples were inspected, including 65 177 from Western Canada and 5 957 from Eastern Canada.

Inspection Services at Terminal, Transfer and Process Elevators. All grain delivered to and shipped from terminal elevators in the Western Division and all Canadian grain shipped from transfer elevators for direct export is sampled and inspected by the Inspection Division. Inspection services are also provided on domestic shipments of eastern grains from transfer elevators and at process elevators on request. All grain in store at terminal and transfer elevators is sampled and inspected at official weighovers of stocks. The quantity of grain inspected by personnel of the Inspection Division is provided in Appendix A.

Grain Appeal Tribunal. The Tribunal examines appeals of persons dissatisfied with grades assigned as a result of an official inspection of grain by a Commission inspector. In the 1982-83 crop year 540 appeals were processed. Grades originally assigned were upheld in 432 cases. The appeals involved shipments of either wheat, oats, barley, rye, rapeseed or flaxseed officially inspected in the Western Division and covered a wide range of grades assigned to 468 259 original inspections.

QUALITY CONTROL

Variety Testing. Evaluating the end-use quality of promising new cultivars developed by plant breeders of red spring wheat, amber durum wheat and malting barley is an important part of the Grain Research Laboratory's work. Cultivars which meet established quality standards are considered for licensing and possible commercial production in Canada. Variety testing is conducted by the Canada Agriculture Services Coordinating Committee. During the 1982-83 crop year, 63 red spring wheat, 85 amber durum wheat and 218 barley cultivars were tested under this program.

The Canadian grading system relies on visual kernel characteristics to distinguish between varieties. As a result, potential new varieties must be visually identifiable before being licensed. Visual characteristics of more than 5 000 samples of plant breeder selections of barley and wheat varieties were examined by the Inspection Division. Samples included 89 varieties of spring and winter barley and 50 varieties of spring, winter and durum wheats from the 1981 Eastern and Western Co-operative Tests.

Protein Segregation of Red Spring. Carlots of No. 1 and No. 2 Canada Western red spring wheat received at terminal elevators are segregated on the basis of protein content as determined by the Commission, using on-site near infrared reflectance spectroscopy (NIRS) protein testing equipment. During the 1982-83 Crop Year, protein segregation was carried out at Thunder Bay, Vancouver and Churchill.

Cargo shipments consistently met guaranteed protein levels. Cargo loading samples were tested on automated Kjeldahl protein testing equipment in Vancouver while samples from other locations were tested in Winnipeg. The Winnipeg automated NIRS unit was used to determine the protein levels for the early harvest survey of red spring wheat, amber durum and barley. The review of the protein content of the official unload sample as determined in Winnipeg, was extended to include all initial elevator protein determinations, as per the Canadian Wheat Board protein payment program for No. 1 CWRS wheat.

Evaluation of the performance of a model of whole grain protein analyzer was carried out under operational conditions at terminal elevators in Thunder Bay and Vancouver. A further program under winter conditions is being designed.

The Feed Regulator and Sample Cleaner (FRASC) mechanisms were instituted for use with grinder equipment used in the protein testing program at three Vancouver terminal elevator locations. An additional Kjelfoss automated Kjeldahl unit was purchased for use at Vancouver to expand the chemical testing capability there.

The Commission continued to assist grain companies in monitoring infrared testing equipment by providing check samples and test result analyses.

Entomology Services. The heavy frost in late August meant that a large volume of low grade grain was harvested and stored. With the mild winter that followed, higher infestation levels were expected in stored grain. Fortunately, this did not occur and infestation levels remained low throughout the crop year.

The Entomology Section processed a total of 120 000 samples during the crop year, with an average infestation level below 1%. No primary elevator licences were lifted because of infestation during that period.

Staff attended farmer and elevator manager meetings across the Prairies, as well as in Southern Ontario and the Maritimes.

Monitoring of Moisture Meter Performance. To ensure a high degree of accuracy in determining grain moisture content, the Grain Research Laboratory operates a bi-weekly check test for all Model 919 Moisture Meters in the Commission's grain inspection offices across Canada. Meters are serviced in the Commission's Laboratory to maintain the required standard of performance.

Pesticide Residue Monitoring. Wheat, barley, oats, rye and rapeseed export shipments were monitored by the Grain Research Laboratory for organochlorine, organophosphate and organonitrogen pesticide residues. Carlots of fumigated grain were also checked for post fumigation residues and grain suspected of contamination by pesticide treatment compounds was examined.

RESEARCH

Laboratory Research. The Grain Research Laboratory is the major Canadian center for basic and applied research on the quality of cereal grains and oilseeds. The Laboratory assesses the quality of new crops and monitors the quality of the grain leaving terminal and transfer elevators. It assists Agriculture Canada in identifying varieties which may become eligible for the top grades of red spring wheat, durum wheat and malting barley.

During the year, a history of the evolution of laboratory milling systems, equipment and practice at the Grain Research Laboratory was researched and published.

New flow systems for milling semolina have been developed to simulate Italian commercial semolina more closely and to emphasize subtle, quality differences between samples.

Pilot-scale millings of vomitoxin-contaminated wheat were conducted at the request of the Health Protection Branch of Health and Welfare Canada, to determine the degree of retention in mill feed and low grade flour streams, as well as in baked products.

As a result of the severe and widespread late-summer frost in 1982, more than 5 million tonnes of hard red spring wheat graded Canada Feed and was designated Special Bin. Milling and baking quality studies were conducted on Special Bin/Canada Feed to better market this wheat.

Studies continue on the suitability of Canadian wheats and flours of varying protein content, gluten strength and starch damage, for the production of Brazilian-type French bread, Chinese steam bread and Chinese noodles. As well, a study has begun on the quality factors of Chinese noodles and steam bread.

Investigations into factors affecting spaghetti stickiness are also underway. The amount of available lysine present in spaghetti manufactured under high temperature is being determined.

Chemical identification of wheat cultivars is progressing. Electrophoresis methodology has been expanded and updated, and the use of high performance liquid chromatography is also under consideration. Barley cultivar identification by the SDS gradient gel electrophoresis technique may assist in identifying previously indistinguishable cultivars. The technique of reversed - phase high performance liquid chromatography is also being examined for possible use in barley cultivar identification.

Enzyme research included work on the purification of alpha-amylase isoenzymes present in germinated wheat and the examination of their action on various starch substrates. As well, two barley varieties were used in the investigation of enzyme changes that occur during malting.

The scanning electron microscope (SEM) was utilized for testing for differences

in starch and meal samples of both good and poor cooking quality lentils. This technique was also used to evaluate the extent of physical degradation caused by malting.

Research to determine wheat hardness by near-infrared reflectance spectroscopy (NIRS) is continuing, in cooperation with laboratories in the U.S.A. and Middle East. Through NIRS research into oilseeds analysis, oil, protein, moisture, fibre and chlorophyll content can now be determined in rapeseed, flaxseed, sunflower seed and safflower seed, as well as in beans, soybeans and castor beans.

Soft wheat quality tests of cookie and cake baking performance and flour particle size are being developed to possibly include these parameters into the quality monitoring surveys of Canadian soft wheat.

In oilseed research, the effect on rapeseed oil quality and quantity of admixtures of wild mustard and other cruciferous weed seeds was examined. Studies of agronomic properties of rapeseed production show that species, cultivars, growing conditions, growing period, cultivation techniques and length of time in swath are significantly correlated with the chlorophyll content.

The early frost of 1982 provided ample material to examine the effect of frost on rapeseed morphology, quality and storage.

Portable freezer units were used to study frost damage in immature wheat. The frost-damaged kernels will be analyzed for degrading factors and for milling and baking quality.

Further details on the work of the Grain Research Laboratory may be found in the Laboratory's Annual Report.

Statistical and Economic Research. The Economics and Statistics Division continued to study grain handling costs to assist the Commission in setting maximum tariffs for services performed in the elevators. The Division also undertook a number of studies on grain movement and handling performance in support of the Commission's other regulatory functions. For example, the impact of amendments to the producer car regulations was examined to help the Commission identify appropriate changes.

(C) COMPLAINTS AND INQUIRIES

Producer Complaints. During the period under review, the Commission investigated written and verbal complaints concerning producer transactions at licensed elevators. In addition, the Assistant Commissioners dealt with a variety of questions and when necessary, informed elevator managers and local superintendents of the licensed companies on proper procedures.

Railcar Shortages. The Weighing Division investigated reports of unusual or excessive shortages of grain in rail cars received at terminal and transfer elevators.

Cargo Shortages. When excessive shortages were indicated in the weights of vessel shipments of grain from Canadian lake and seaboard ports, the Weighing Division investigated loading of the cargoes and reviewed all available information relating to unloading of the grain at destination.

During the period, the Division investigated 12 vessel shipments destined overseas. Outturns on lake vessels from Thunder Bay to transfer elevators in the Eastern Division were investigated in 371 cases where overages or shortages exceeded 0.1% of bill of lading figures. Details of shortages and overages may be found in the Appendix.

Quality of Export Shipments. Inquiries relating to quality and condition of grain shipped to overseas destinations were investigated by the Commission. Official samples taken from the shipments at the time of loading were examined and detailed reports of the investigations were provided. During the 1982-83 crop year, 36 such inquiries were received, all of which were investigated and satisfactorily settled.

SECTION IV

SPECIAL ACTS AND OTHER RESPONSIBILITIES

(A) GRAIN FUTURES ACT

This Act regulates grain futures trading in Canada. Reporting to the Commission, the Supervisor of Futures Trading, appointed pursuant to the Act, must ensure that the requirements of the Act are met.

Order-in-Council P.C. 1976-590 extended the provisions of the Grain Futures Act to Winnipeg Commodity Clearing Ltd., Winnipeg Commodity Exchange, Vancouver Grain Exchange, British Columbia Grain Shippers Clearance Association, Lake Shippers Clearance Association and to their officers and members.

Under the provisions of the Regulations, the Exchanges and clearing houses must file lists of their members and copies of their by-laws, rules and regulations with the Commission.

The Supervisor observes the procedures used by grain futures traders. He also examines the records and reviews the procedures of clearing houses to ensure that these are acceptable to the Commission and in keeping with the Act and Regulations. Periodic visits are made to the Vancouver Grain Exchange for the same purpose. The Supervisor acts as a liaison between the Commission and those organizations, subject to the provisions of the Act and Regulations.

(B) INLAND WATER FREIGHT RATES ACT

Under this authority, the Commission may establish maximum freight rates for the carriage of grain by laker from Thunder Bay to other ports in Eastern Canada. No maximum levels have been set since the last schedule was revoked on March 10, 1959.

Summaries of weighted average lake freight rates are prepared by the Economics and Statistics Division to keep the Commission informed on current levels. Details on average lake freight rates for the 1982 season of navigation may be found in the Appendix.

(C) WESTERN GRAIN STABILIZATION ACT

The Commission may investigate complaints alleging that the eligibility of an applicant for participation in the Western grain stabilization plan has not been properly recognized. Producers declared ineligible by the Minister responsible may appeal the decision to the Commission pursuant to subsection 7(2). By virtue of subsection 28(1), the Commission may rule on the applicant's eligibility. No such appeals were made during the reporting period.

The Commission continues to provide computer services to the Western Grain Stabilization Administration, including the maintenance of records of producer transactions and levies and the calculation of payouts to participants.

(D) CANADIAN INTERNATIONAL GRAINS INSTITUTE

The Commission continued to support the Institute in its efforts to provide market development assistance for Canada's grain and oilseed industry. Commissioners and officers of the Commission once again served as lecturers and resource persons for the many courses offered by the Institute, in which a number of Commission employees were participants.

Mr. G.G. Leith, Assistant Chief Commissioner, was appointed Chairman of the Institute's Board of Directors on March 15, 1983. On June 7, 1983, Mr. E.E. Baxter, Special Advisor, resigned as Director of the Institute. Mr. W.J. O'Connor, Executive Director, was appointed Director of the Institute on June 14, 1983.

(E) INVESTIGATIONS

Following an investigation report on a complaint by a shipper citing financial loss after his grain went out of condition while stored in a licensed terminal elevator, the Commission ruled on the findings and ordered settlement of payment by the elevator operator to the shipper.

SECTION V

ADMINISTRATION

PERSONNEL

Appointments and Retirements. On October 1st, 1982, Mr. G.R. McLaughlin was appointed Deputy Director of Statistics and Research, Economics and Statistics Division.

Mr. V. Duke, Chief Grain Inspector and Director of the Inspection Division since 1977, retired from the Commission on March 31, 1983, after 35 years of service.

On April 1st, 1983, Mr. H. Fast was appointed Chief Grain Inspector and Director of the Inspection Division.

On June 21, 1983, Mr. A.A. Macdonald was appointed Deputy Director of Operations, Inspection Division, responsible for the Division's operations at the Pacific Coast, the Prairies, Thunder Bay, and the St. Lawrence and Atlantic ports.

Mr. J.V. Gould, Pacific Regional Weighmaster, Weighing Division, retired from the Commission on June 29, 1983, after 39 years of service.

INFORMATION PROGRAM

Publications. A complete list of publications regularly issued by the Commission can be found in Appendix B.

These publications are prepared by the Economics and Statistics Division, the Inspection Division and the Grain Research Laboratory. They are distributed throughout Canada, the United States and abroad and are available either free or at cost from the Commission.

Meetings and Visits. Representatives of the Commission attended or addressed a wide variety of meetings in Canada and abroad. These meetings dealt with various aspects of grain handling and grain quality. Attendance at the meetings allows the Commission to keep abreast of new developments and to publicize its activities. Meetings were also held with many of the purchasers of Canadian grain and oilseeds to ensure their continued satisfaction. As well, professional and senior technical staff members represented the Commission at scientific and technical meetings in North America and abroad and laboratory staff made technical service visits to several overseas countries.

At the invitation of the People's Republic of China, Mr. J.S.T. Swanson, Director, Weighing Division, visited Shanghai and Beijing in May, 1983, to present to members of the Weighing Division of the China Commodity Inspection Bureau a series of lectures on grain weighing in Canada. Mr. G.G. Leith, Assistant Chief Commissioner, accompanied Mr. Swanson.

Tours. The Commission continues to be visited by individuals, groups, delegations and missions interested in its many activities. During the year, 117 special visitors from all parts of Canada and from 22 other nations toured the headquarters or regional facilities of the Commission and held discussions with various Commission staff members. As well, 55 organized groups visited the facilities, numbering 858 people from 12 countries.

EXHIBIT. The Commission's display unit was in place at several fairs and meetings throughout the year and a number of these events are now being scheduled on an annual basis. The display is staffed by representatives of the Commission who are on hand to answer inquiries and provide detailed information on the Commission's policies and programs.

FINANCES

REVENUES. The Canadian Grain Commission's revenue accounts are maintained on a cash basis and credited directly to the government's consolidated revenue account. During the fiscal year ending March 31, 1983, the Commission collected a total revenue of \$33,798,000 for goods and services provided to the grain trade, an increase of \$6,271,000 (22.8%) over the previous period.

The increase in revenues can be attributed partly to the rise in the Commission's service fees as well as to the larger volumes of grain that moved through the handling system.

EXPENDITURES. Expenditures are charged to operations and recovered from parliamentary appropriations provided for that purpose. Expenditures noted in this report are recorded on a cash basis, modified to include costs for services and goods received to March 31, 1983, but unpaid to the close of settlements for the 1982-83 fiscal year.

Operating expenditures include non-budgetary services from other government departments for which there is no direct charge, such as employee benefits and cheque issue costs. Total Commission expenditures for 1982-83 amounted to \$35,582,000, with 875.8 person-years. This represents a \$4,087,000 (13.0%) increase, primarily due to higher personnel costs, including collective agreement settlements, but also partly due to the 4.3 million tonne (16.6%) increase in grain movement over the previous period.

Appendices

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APPENDIX A

Grain Statistics and Quality

A-1 SUPPLY AND DISPOSITION OF CANADIAN GRAINS Crop Year 1982-83* (thousands of tonnes)

	Wheat**	Oats	Barley	Rye	Flax- seed	Rape- seed	Total
SUPPLY							
Carry-over July 31, 1982***	9 758	855	4 161	334	259	692	16 059
Production in 1982	26 790	3 684	14 074	913	734	2 246	48 441
Total Supply	36 548	4 539	18 235	1 247	993	2 938	64 500
DISPOSITION							
Exports****	21 368	105	5 671	251	383	1 271	29 049
Domestic Use	5 267	3 346	7 410	361	148	1 185	17 717
Total Disposition	26 635	3 451	13 081	612	531	2 456	46 766
CARRY-OVER (July 31, 1983)							
On farms	2 125	920	3 420	210	120	40	6 835
In primary, process and terminal elevators	5 218	141	1 433	390	335	411	7 928
In store and afloat to eastern transfer elevators	1 767	21	203	21	2	5	2 019
In eastern and western mills	74	—	—	—	—	—	74
In transit by rail eastern and western divisions ...	729	6	98	14	5	26	878
Total in store July 31, 1983	9 913	1 088	5 154	635	462	482	17 734

*Subject to Revision

**Wheat includes Durum Wheat

***Revised

****Includes exports of bulk grain, seeds, and (except for flaxseed and rapeseed) milled and processed products expressed as grain equivalent.

A-2 LICENCES IN FORCE AND STORAGE CAPACITY August 1, 1982 and 1983

	Licences		Capacities	
	1982	1983	1982 — tonnes —	1983
Primary	2 934	2 800	8 137 700	8 035 480
Terminal and Process	48	56	4 243 070	4 236 660
Transfer	27	25	3 690 430	3 466 390
Grain Dealers	40	66	—	—
TOTALS	3 049	2 947	16 071 200	15 738 530

A-3 TOTAL NET TERMINAL ELEVATOR RECEIPTS
Crop Year 1982-83

	Tonnes	Percentage
WHEAT		
1 Canada Western Red Spring	9 268 056	47.8
Tough 1 Canada Western Red Spring	20 160	0.1
2 Canada Western Red Spring	3 504 983	18.1
Tough 2 Canada Western Red Spring	46 077	0.2
3 Canada Western Red Spring	3 569 544	18.4
Tough 3 Canada Western Red Spring	181 747	0.9
1 Canada Utility	379 054	2.1
2 Canada Utility	70 816	0.4
Canada Feed	2 093 898	10.8
Tough Others	195 153	1.0
Damp	24 521	0.1
Rejected	2 981	—
Others Red Spring	20 912	0.1
Total Red Spring Wheat	19 377 902	100.0
DURUM		
1 Canada Western Amber Durum	1 828 567	63.4
2 Canada Western Amber Durum	519 085	18.0
3 Canada Western Amber Durum	337 595	11.8
4 Canada Western Amber Durum	114 204	4.0
5 Canada Western Amber Durum	14 673	0.5
Tough Durum	49 970	1.7
Others Durum	17 825	0.6
Total Durum	2 881 919	100.0
Total Soft Wheat Spring	384 155	
Total Red Winter Wheat	164 914	
Total All Wheats	22 808 890	

A-3 TOTAL NET TERMINAL ELEVATOR RECEIPTS
Crop Year 1982-83 (Continued)

	Tonnes	Percentage
OATS		
1 Canada Western	100	—
2 Canada Western	16 531	6.8
Extra 1 Feed	73 710	30.2
1 Feed	131 502	53.9
2 Feed	9 194	3.8
3 Feed	1 611	0.7
Tough	6 598	2.7
Damp	259	0.1
Rejected	155	—
Others	4 310	1.8
Total Oats	243 970	100.0
BARLEY		
1 Canada Western Six-Row	1 531	—
2 Canada Western Six-Row	35 059	0.6
1 Canada Western Two-Row	5 262	0.1
2 Canada Western Two-Row	123 564	2.3
1 Feed	4 771 177	84.5
2 Feed	246 288	4.4
3 Feed	24 061	0.4
Tough	132 017	2.3
Damp	12 549	0.2
Rejected	5 614	0.1
Others	287 705	5.1
Total Barley	5 644 827	100.0

A-3 TOTAL NET TERMINAL ELEVATOR RECEIPTS
Crop Year 1982-83 (Continued)

	Tonnes	Percentage
RYE		
1 Canada	212 548	69.5
2 Canada	66 944	21.9
3 Canada	8 395	2.7
Canada Ergoty	305	0.1
Tough	9 098	3.0
Rejected	104	—
Others	8 316	2.8
Total Rye	305 710	100.0
FLAXSEED		
1 Canada	395 238	95.0
2 Canada	7 785	1.9
3 Canada	2 628	0.6
Tough	5 598	1.3
Damp	332	0.1
Rejected	1 052	0.3
Others	3 286	0.8
Total Flaxseed	415 919	100.0
RAPSEED		
1 Canada	1 040 494	74.1
2 Canada	181 222	12.9
3 Canada	90 166	6.4
Tough	2 988	0.2
Damp	660	—
Rejected	2 237	0.2
Others	85 517	6.2
Total Rapeseed	1 403 284	100.00

A-3 TOTAL NET TERMINAL ELEVATOR RECEIPTS
Crop Year 1982-83 (Concluded)

	Tonnes	Percentage
OTHER GRAINS AND PRODUCTS		
Sunflower	1 273	0.4
Mixed Grain	869	0.3
Screenings	62 442	21.9
Buckwheat	11 175	3.9
Peas	5 757	2.1
Corn	2 673	0.9
Canary Seed	17 870	6.3
Mustard Seed	41 652	14.6
Triticale	223	—
U.S. Corn	1 297	0.5
U.S. Safflower	465	0.2
Barley Malt	6 715	2.4
U.S. Mustard	221	—
Lentils	5 794	2.0
Fababeans	56	—
Millet	48	—
Manufactured Products	8 624	3.0
Pelleted Screenings	118 423	41.5
Totals	285 577	100.0
Grand Total	31 108 177	

A-4 SAMPLES OF GRAIN "SUBJECT TO GRADE AND DOCKAGE"
AND OTHER UNOFFICIAL SAMPLES INSPECTED
Crop Year 1982-83 Compared with Crop Year 1981-82

Point	1982-83	1981-82
	Number of Samples	
Chatham	3 310	12 387
Toronto	1 732	2 185
Montreal	915	4 075
Winnipeg	24 682	18 200
Calgary	20 806	10 201
Edmonton	2 149	807
Moose Jaw	962	381
Saskatoon	1 569	471
Lethbridge	11 067	11 153
Vancouver	3 942	4 691
Totals	71 134	64 551

A-5 UNOFFICIAL SAMPLES OF EASTERN GRAIN INSPECTED
Crop Year 1982-83 Compared with Crop Year 1981-82

Point	1981-82	1982-83
	Number of Samples	
Chatham	9 074	7 874
Toronto	3	15
Montreal	4 075	915
Totals	13 152	8 804

A-6 INWARD CARLOT AND TRUCKLOT RE-INSPECTIONS OF WESTERN GRAIN
Crop Year 1982-83

Point	Inspected	Re- Inspected	Un- Changed	Grades Raised	Grades Lowered	Dockage Raised	Dockage Lowered
Thunder Bay	285 058	14 543	12 724	1 624	66	2	127
Winnipeg	3 409	1 032	962	70	—	—	—
Churchill	10 422	493	417	74	2	—	—
Moose Jaw	3 112	187	133	47	2	2	3
Saskatoon	292	100	82	11	6	—	—
Calgary	6 426	160	146	14	—	—	—
Edmonton	1 794	53	50	3	—	—	—
Lethbridge	56	4	4	—	—	—	—
Prince Rupert	20 093	876	690	181	—	1	4
Vancouver	137 597	6 099	5 589	455	23	9	23
Totals	468 259	23 547	20 797	2 479	99	14	158

Percentage of total carlots and trucklots ...	100.0	5.0	4.4	0.5	*	*	*
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*Less than 0.05%

**A-7 OUTWARD CARLOT INSPECTIONS OF WESTERN GRAIN AT
TERMINAL AND PROCESS ELEVATORS, Crop Year 1982-83**

Grain	Winnipeg	Thunder Bay	Calgary	Edmonton	Moose Jaw
Wheat	2	12 150	18	17	504
Oats	1	1 446	—	34	—
Barley	120	4 825	12	77	—
Flaxseed	—	8	2	4	73
Rye	—	84	—	—	4
Mixed Grain	6	20	—	—	—
Corn	—	—	—	—	2
Buckwheat	—	—	—	1	6
Peas	—	—	—	—	3
Screenings	73	1 132	—	2	84
Rapeseed	—	52	220	484	319
Sample Feed Grain	—	—	—	—	—
Mustard Seed	—	3	—	—	36
Sample Grain	—	—	—	—	—
Sunflower	—	1	—	—	—
Broken Wheat	—	—	—	—	—
Different Grain	—	—	—	—	—
Pellets	—	2	—	—	—
Beans	—	—	—	—	3
Sample Broken Grain	—	—	—	—	—
Fababeans	—	—	—	—	—
Totals	202	19 723	252	619	1 034

Grain	Saskatoon	Lethbridge	Vancouver & Prince Rupert	Churchill
Wheat	15	73	10	3
Oats	1	—	16	—
Barley	10	4	10	3
Flaxseed	15	1	1	—
Rye	6	—	2	—
Mixed Grain	14	—	10	—
Corn	—	—	—	—
Buckwheat	7	—	—	—
Peas	—	—	—	—
Screenings	47	9	—	—
Rapeseed	545	44	6	—
Sample Feed Grain	—	—	—	—
Mustard Seed	8	135	29	—
Sample Broken Grain	—	—	—	—
Different Grain	—	—	—	—
Sunflower	—	—	—	—
Beans	—	—	—	—
Broken Wheat	—	—	—	—
Pellets	—	—	—	—
Sample Mixed Grain	—	—	—	—
Totals	668	266	84	6

A-8 CARLOT INSPECTIONS OF EASTERN GRAIN
Crop Year 1982-83

Grain	Montreal	Toronto	Chatham	Total
Eastern White Winter Wheat	—	—	1	1
Soybeans	—	—	7	7
Corn	—	—	84	84
Rapeseed	—	—	1	1
Total, All Grains	—	—	93	93

**A-9 INSPECTIONS OF EASTERN GRAIN IN CARGOES, BINS,
TRUCKS, OR WAREHOUSES, Crop Year 1982-83**

Grain	Montreal	Toronto — tonnes —	Chatham	Total
Wheat	78 296.000	—	193 114.720	271 410.720
Barley	14 554.830	32.410	32 327.335	46 914.575
Rye	—	—	28 165.000	28 165.000
Corn	51 993.966	32.410	651 911.164	703 937.540
Soybeans	—	—	71 146.620	71 146.620
Beans	217.637	—	5 412.626	5 630.263
Buckwheat	643.000	—	—	643.000
Fababeans	36.288	—	—	36.288
Peas	1 204.112	—	—	1 204.112
Sunflower Seed	36.015	—	—	36.015
Lentils	13 913.862	—	—	13 913.862
Rapeseed	—	—	—	—
Mustard Seed	24.948	—	—	24.948
Totals	160 920.658	64.820	982 077.465	1 143 062.943

A-10 GROSS QUANTITIES OF GRAIN INSPECTED & WEIGHED AT TERMINAL ELEVATORS
Crop Year 1982-83

Point RECEIPTS	Wheat	Durum	Oats	Barley	Rye	Flaxseed	Rapeseed	Miscellaneous
Thunder Bay	12 109 775	2 680 125	243 544	3 554 284	163 428	296 841	144 573	25 790
Vancouver	6 538 343	254 956	2 489	1 941 395	146 979	152 639	1 287 671	21 179
Prince Rupert	1 415 694	88	—	54	—	—	78	—
Churchill	363 732	—	—	184 376	—	—	—	—
Alberta Inland								
Terminals	12 016	1 291	3 098	22 312	732	1 237	53 418	12 865
Moose Jaw	2 103	1 986	105	435	586	4 657	45 032	21 924
Saskatoon	3 751	529	119	9 446	628	2 761	31 365	7 497
Totals	20 445 414	2 938 975	249 355	5 712 302	312 353	458 135	1 562 137	89 255
SHIPMENTS								
Thunder Bay	11 562 716	2 653 143	259 033	3 498 195	122 402	248 825	128 792	24 964
Vancouver	6 464 347	238 110	2 331	2 062 681	124 005	131 036	1 187 080	18 437
Prince Rupert	1 384 821	88	—	54	—	—	484	—
Churchill	388 901	—	—	168 061	—	—	—	—
Alberta Inland								
Terminals	12 700	1 173	2 516	26 998	518	782	74 543	13 032
Moose Jaw	2 136	16 750	90	241	—	2 901	25 888	16 553
Saskatoon	3 614	529	64	5 310	506	1 255	44 158	7 691
Totals	19 819 235	2 909 793	264 034	5 761 540	247 431	384 799	1 460 945	80 677

NOTE: Miscellaneous includes sunflower, mixed grain, corn, buckwheat, peas, sample feed grain, mustard, triticale, lentils, fababeans, canary seed, U.S. wheat, U.S. corn, U.S. mustard and U.S. safflower.
 (Does not include screenings or barley malt.)

A-11 GRAIN SAMPLED BUT NOT INSPECTED
Crop Year 1982-83

	Montreal	Sorel Quebec and Trois Rivières	Halifax and St. John N.B.	Baie Comeau	Port Cartier	Total
Eastern Grain						
Carlots	—	—	—	—	—	—
Inward cargoes (tonnes)	11 997,890	—	—	—	—	11 997,890
Outward cargoes (tonnes) ...	—	—	—	—	—	—
Bin lots (tonnes)	—	—	—	—	—	—
Western Grain						
Carlots	—	—	—	—	—	—
Inward cargoes (tonnes)	152 837,757	2 131,310	—	—	—	154 969,067
Outward cargoes (tonnes) ...	—	—	—	—	—	—
Bin lots (tonnes)	—	—	—	—	—	—
U.S.A. Grain						
Carlots	—	—	—	—	—	—
Inward cargoes (tonnes)	1 212,840	—	—	—	—	1 212,840
Outward cargoes (tonnes) ...	—	23 000,070	—	—	—	23 000,070
Bin lots (tonnes)	—	—	—	—	—	—
Total — Cars	—	—	—	—	—	—
— Tonnes	166 048,487	25 131,380	—	—	—	191 179,867

A-12 INWARD AND EXPORT CARGOES SAMPLED AND INSPECTED
Crop Year 1982-83

	Montreal	Sorel	Trois Rivieres	Quebec — tonnes —	Halifax and Saint John	Baie Comeau	Port Cartier	Total
Eastern Grain								
Inward	—	—	—	—	37 458.120	—	—	37 458.120
Export	53 689.780	—	—	—	—	—	—	53 689.780
Western Grain								
Inward	—	—	—	—	—	—	—	—
Export	3 133 460.633	886 259.423	788 692.045	4 528 625.890	518 195.980	2 448 677.185	3 411 602.473	15 715 513.629
Totals	3 187 150.413	886 259.423	788 692.045	4 528 625.890	555 654.100	2 448 677.185	3 411 602.473	15 806 661.529

A-13 OFFICIAL WEIGHINGS
Crop Year 1982-83

	Lake Vessels Loaded	Ocean Vessels Loaded	Vessels Unloaded	Railcars Unloaded	Railcars Loaded	Trucks Unloaded	Total
Pacific Region	—	511	—	158 118	169	—	158 798
Prairie Region	—	19	—	10 826	2 905	10 591	24 341
Thunder Bay	838	86	—	287 438	19 670	560	308 592
Eastern Region	—	239	161	17 838	2 918	—	21 146
Total	838	855	161	474 210	25 662	11 151	512 877

**A-14 CARLOTS WEIGHED AND EXCEPTION REPORTS
ISSUED IN THE WESTERN DIVISION
Crop Years 1982-83 and 1981-82**

	1982-83	1981-82
Cars Weighed In	423 845	431 609
Cars Weighed Out	15 593	30 441
Exception Reports Issued*	7 673	10 283

*Represents leaks and missing or defective seals.

**A-15 AVERAGE REPORTED OUTTURN SHORTAGE ON VESSEL SHIPMENTS
OF GRAIN FROM THUNDER BAY TO LICENSED TRANSFER ELEVATORS
Crop Year 1982-83**

Commodity	Tonnes Shipped	Shortage Per Cent	
		1982-83 *	1981-82
Wheat	10 797 012	0.05	0.04
Durum	2 238 338	0.04	0.04
Oats	135 720	0.06	0.09
Barley	2 852 650	0.04	0.05
Rye	18 618	0.13	0.21
Flaxseed	1 711	0.13	0.03
Rapeseed	51 133	0.14	0.20
Screenings	102 779	0.10	0.10

*Preliminary

A-16 TOUGH AND DAMP GRAIN DRIED BY STORAGE POSITION
Crop Year 1982-83
Artificial Drying

			— TONNES —		
	Tough	Damp	Tough & Damp	Natural Drying	Total
THUNDER BAY					
Wheat	—	10 650	10 650	235 023	245 673
Durum	—	3 068	3 068	33 672	36 740
Oats	—	259	259	5 430	5 689
Barley	—	4 882	4 882	68 355	73 237
Rye	219	—	219	3 212	3 431
Flaxseed	—	47	47	3 320	3 367
Rapeseed	—	—	—	166	166
Sunflower	—	—	—	100	100
Total	219	18 906	19 125	349 278	368 403
PACIFIC COAST					
Wheat	96 393	11 262	107 655	82 111	189 766
Durum	—	—	—	331	331
Oats	138	—	138	—	138
Barley	18 146	4 762	22 908	29 553	52 461
Rye	—	—	—	3 685	3 685
Flaxseed	—	—	—	506	506
Rapeseed	—	—	—	188	188
Buckwheat	—	42	42	—	42
Total	114 677	16 066	130 743	116 374	247 117
INTERIOR TERMINALS					
Wheat	157	817	974	—	974
Durum	173	1 742	1 915	—	1 915
Oats	92	—	92	—	92
Barley	49	398	447	115	562
Rye	112	6	118	—	118
Flaxseed	617	259	876	33	909
Rapeseed	1 735	642	2 377	214	2 591
Buckwheat	—	29	29	—	29
Mustard Seed	211	126	337	—	337
Total	3 146	4 019	7 165	362	7 527
CHURCHILL					
Wheat	—	—	—	—	—
Barley	—	—	—	—	—
Totals —					
All Positions	118 042	38 991	157 033	466 014	623 047

A-17 OFFICIAL INSPECTIONS APPEALED
Crop Year 1982-83

	Inspections	Percentage
Total Inspections Appealed	540	
Left as graded	432	80.0
Grades raised	105	19.5
Grades lowered	3	0.5
Totals	540	100.0

A-18 WEIGHTED AVERAGE LAKE FREIGHT RATES ON CANADIAN
GRAIN FROM THUNDER BAY
Season of Navigation 1982

Port of discharge	Wheat	Oats	Barley	Rye	Flax- seed	Rape- seed
		— dollars per tonne —				
Goderich and Sarnia	8.51	13.88	11.37	10.20	—	—
Windsor	—	—	—	—	10.78	9.25
Port Colborne	9.55	—	—	—	—	—
Toronto	—	—	16.57	—	—	—
Kingston	9.27	—	12.82	—	—	—
Prescott	10.26	23.48	13.72	—	—	—
Montreal	13.23	20.11	15.39	14.00	—	—
Sorel	12.73	21.69	15.33	—	—	—
Trois Rivières	12.62	21.20	15.60	12.48	—	—
Quebec	12.69	20.76	15.47	—	—	—
Baie Comeau	12.84	—	15.75	—	—	—
Port Cartier	12.79	—	15.70	—	—	—
Halifax	22.56	—	28.16	—	—	—
Other Maritime Ports	30.02	—	36.53	—	—	—

APPENDIX B

List of Publications

Title	Issued
Annual Report, Canadian Grain Commission	Annually
Canada Grain Regulations	
Canadian Amber Durum Wheat, Crop Bulletin	Annually
Canadian Barley, Crop Bulletin	Annually
Canadian Durum Cargoes, Bulletin	Quarterly
Canadian Grain Exports	Annually
Canadian Red Spring Wheat, Crop Bulletin	Annually
Canadian Wheat Cargoes, Bulletin	Quarterly
Exports of Canadian Grain and Wheat Flour	Monthly
Grain Elevators in Canada	Annually
Grain Grading Handbook for Eastern Canada	Annually
Grain Grading Handbook for Western Canada	Annually
Grain Research Laboratory Annual Report	Annually
Grain Statistics Weekly	Weekly
Maps of Western Canada Showing the Protein Content of Hard Red Spring Wheat Grades	Annually
Visible Grain Supplies and Disposition	Annually
Official Canadian Grain Grading Guide	
Specifications for Official Grades of Canadian Grain	
Grain Deliveries at Prairie Points	Annually
The Key to Canada's Certificate Final is Uniform Quality	
Grain Inspector's Manual	
Mechanical Sampler Supplement	
Summary of Licensing Requirements	
Stored Grain Pests	
Western Canadian Oilseeds, Crop Bulletin	Annually
Quality of 1983 Western Canadian Grain Crops — Preliminary Report	Annually

Further information on the Grain Research Laboratory's scientific and technical publications will be found in the 1983 Annual Report of Laboratory.

APPENDIX C

Revenue and Expenditures

C-1 STATEMENT OF REVENUE AND EXPENDITURES
Fiscal Year Ended March 31, 1983 \$(000)

TYPE	Executive and Administration	Grain Inspection	Grain Weighing	Economics & Statistics	Research Laboratory	Total Current Year	Total Previous Year
Revenue (Appendix C 2)	116	19597	10801	3284		33798	27527
Expenditures: (Appendix C 3)							
Operating & Maintenance .	1959	16619	8608	3173	3984	34343	31053
Capital	18	413	167	49	541	1188	438
Contributions			45		6	51	4
Total Expenditures	1977	17032	8820	3222	4531	35582	31495
Cost of Operations							
(Deficit)	(1861)	2565	1981	62	(4531)	(1784)	(3968)

**Executive and
Administration**

**Grain
Inspection**

**Grain
Weighing**

**Economics &
Statistics**

**Research
Laboratory**

**Canadian Govt.
Elevators**

**Total
Current Year**

**Total
Previous Year**

C-2 REVENUE — By Type and Division
Fiscal Year Ended March 31, 1983 \$(000)

TYPE	Executive and Administration	Grain Inspection	Grain Weighing	Economics & Statistics	Research Laboratory	Total Current Year	Total Previous Year
Service Fees:							
Inspection		19518				19518	15577
Weighing			10801			10801	8033
Storage							207
Elevation							230
Cleaning							(39)
Documentation				3182		3182	2375
Other	2	23				25	23
Grain Sales:							
Samples		48				48	41
Surplus							167
Screenings							76
Weighover Proceeds							721
Licences				101		101	106
Sundry	114	8		1		123	10
Total	(1)						
Current Year	116	19597	10801	3284		33798	
Total	(2)						
Previous Year	1368	15640	8034	2483	2		27527

(Credit) Denotes refund of previous year revenue.

(1) Includes 103K from Canadian Government Elevators.

(2) Includes 1363K from Canadian Government Elevators.

C-3 EXPENDITURES — By Type and Division
Fiscal Year Ended March 31, 1983 \$(000)

TYPE	Executive and Administration	Grain Inspection	Grain Weighing	Economics & Statistics	Research Laboratory	Total Current Year	Total Previous Year
Operating & Maintenance:				\$(000)			
Salary & Wages	1237	13104	7031	2007	2395	25774	23215
Employee Benefit Costs (1) ..	244	2133	1131	383	462	4353	3847
Travel & Relocation	99	357	282	39	69	846	836
Postage, Freight, Cartage ...	83	147	2	4	21	257	198
Communication	69	82	24	76	25	276	248
Advertising				6		6	
Publications Issued	14	9		37	27	87	73
Prof. & Special Services	30	29	19	79	33	190	167
Accounting Serv. Costs (1) ..	1	12	6	2	3	24	20
Rentals:							
Office & Laboratory	118	509	73	241	634	1575	1484
Computer				107		107	188
Equipment-General	11	11	4	7	8	41	38
Purchase Repair Service:							
Buildings		4	1		4	9	10
Equipment	7	13	9	112	58	199	66
Printing & Stationery	44	75	19	69	47	254	237
Materials & Supplies	2	125	7	4	198	336	341
Expenditures — Other		9				9	2
Weighover Shortages							83
Total Operating & Maint. ...	1959	16619	8608	3173	3984	34343	31053
Capital:							
Office & Laboratory							
Renovations	8	63			178	249	84
Equipment:							
Scientific & Tech.		108	4		272	384	208
Office	10	21	7	17	26	81	46
Computers				32	31	63	13
Other Equipment		221	156		34	411	87
Total Capital	18	413	167	49	541	1188	438
Contributions:							
Memberships					6	6	4
Automated Scale Installation			45			45	
Total Contributions			45		6	51	4
Total							
Current Year	1977	17032	8820	3222	4531	35582	
Total	(2)						
Previous Year	1962	15150	7894	2797	3692		31495

(1) Includes costs of a direct payment and service provided without charge by other government departments.

(2) Includes 155K from Canadian Government Elevators.

C-4 EXPENDITURES — By Location and Division
Fiscal Year Ended March 31, 1983 \$(000)

LOCATION	Executive and Administration	Grain Inspection	Grain Weighing	Economics & Statistics	Research Laboratory	Total Current Year	Total Previous Year
Vancouver		3209	2271	542		6022	5320
Prince Rupert		306	332			638	560
Lethbridge		164	56			220	227
Calgary	78	327	95			500	519
Edmonton		157	55			212	221
Saskatoon	75	246	83			404	417
Moose Jaw		127	83			210	325
Regina	31					31	81
Churchill		40	26			66	43
Winnipeg	1692	2678	771	1865	4531	11537	9813
Thunder Bay		7098	4025	668		11791	10535
Toronto		91				91	73
Chatham		927				927	817
Harrow	51					51	46
Montreal		1014	1023	147		2184	1857
Baie Comeau		172				172	121
Sorel		100				100	124
Port Cartier		131				131	112
Quebec City		160				160	152
Sherbrooke	50					50	44
Three Rivers		85				85	88
Total							
Current Year	1977	17032	8820	3222	4531	35582	
Total	(1)						
Previous Year	1962	15150	7894	2797	3692		31495

(1) Includes 155K from Canadian Government Elevators.

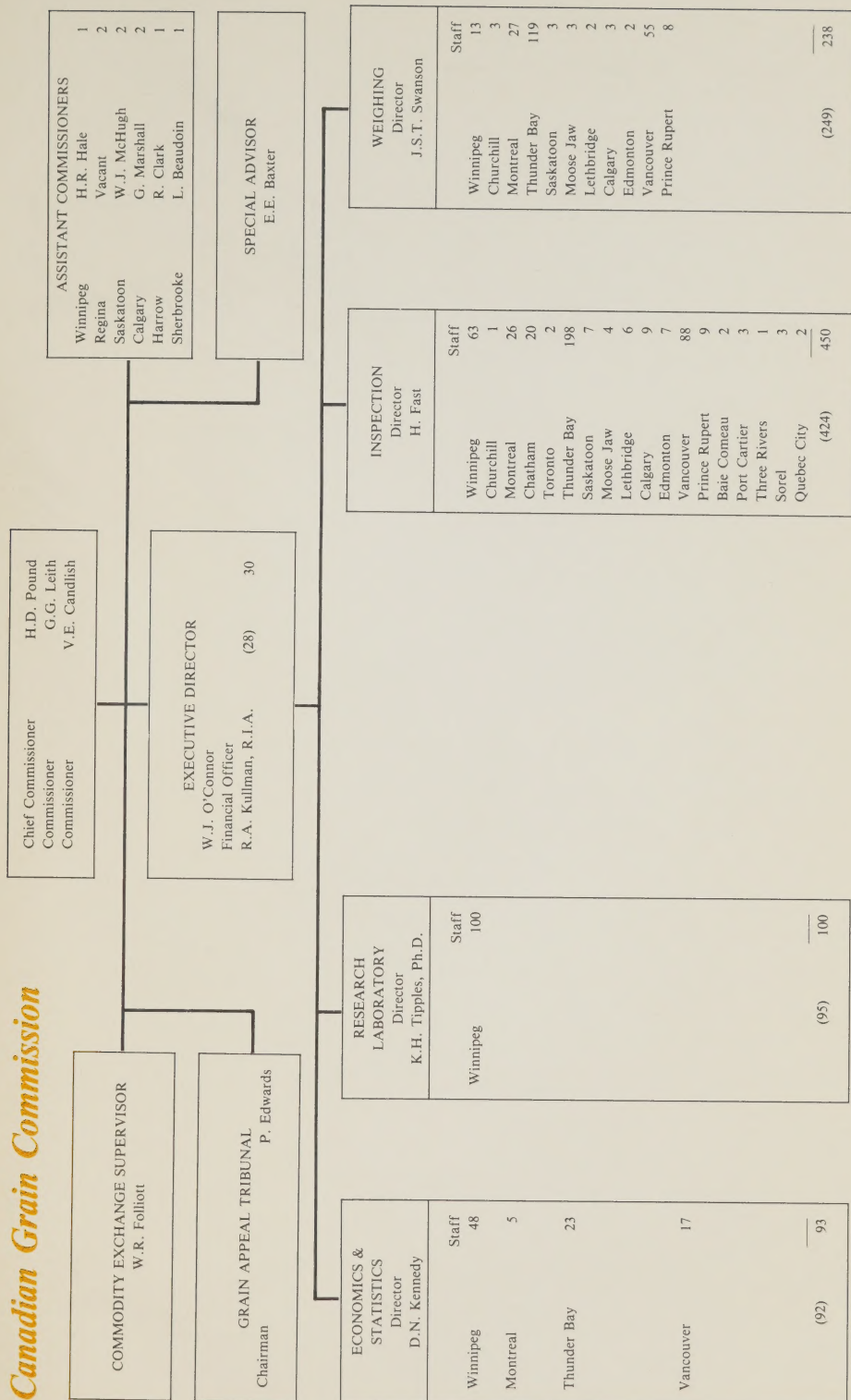
C-5 REVENUE — By Location and Division
Fiscal Year Ended March 31, 1983 \$(000)

LOCATION	Executive and Administration	Grain Inspection	Grain Weighing	Economics & Statistics	Research Laboratory	Total Current Year	Total Previous Year
Vancouver		6214	3627	1147		10988	8869
Prince Rupert		749	436			1185	1055
Lethbridge		68	7			75	79
Calgary		138	18			156	157
Edmonton		40	16			56	84
Saskatoon		73	22			95	138
Moose Jaw		51	22			73	1455
Churchill		355	223			578	462
Winnipeg	116	281		2018		2415	1706
Thunder Bay		10871	6278			17149	12374
Toronto		6				6	22
Chatham		538				538	777
Montreal		112	152	119		383	284
Baie Comeau		27				27	12
Sorel		20				20	28
Port Cartier		17				17	9
Quebec City		25				25	13
Three Rivers		12				12	3
Total	(1)						
Current Year	116	19597	10801	3284		33798	
Total	(2)						
Previous Year	1368	15640	8034	2483	2		27527

(1) Includes 103K from Canadian Government Elevators.

(2) Includes 1363K from Canadian Government Elevators.

Canadian Grain Commission



Persons employed at July 31, 1983.
Includes full-time and casual, seasonal and part-time staff.
Figures in parentheses represent authorized person-years.

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